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ABSTRACT

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A watercraft with a steer-responsive throttle generates thrust when the steerable propulsion unit is turned beyond a predetermined angular threshold. The turning of the steering wheel beyond the threshold causes the throttle to be opened so that the steerable propulsion unit produces a thrust at least equal to the minimal propulsive force needed to effectively steer the watercraft. A watercraft equipped with a steerresponsive throttle ensures that there is always sufficient thrust for steering the watercraft even when the operator fails to open the throttle manually. This steerresponsive throttle is applicable to single-engine personal watercraft, twin-engine jet boats or motorboats equipped with swivel-mounted outboard motors. In a first embodiment of the steer-responsive throttle, rotation of the steering wheel beyond the angular threshold causes an actuating cable to open the throttle. In a second embodiment, an electronic control system regulates the throttle by calculating the optimal throttle setting based on measurements derived from a speed sensor, a steering angle sensor and, optionally, a throttle position sensor.

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